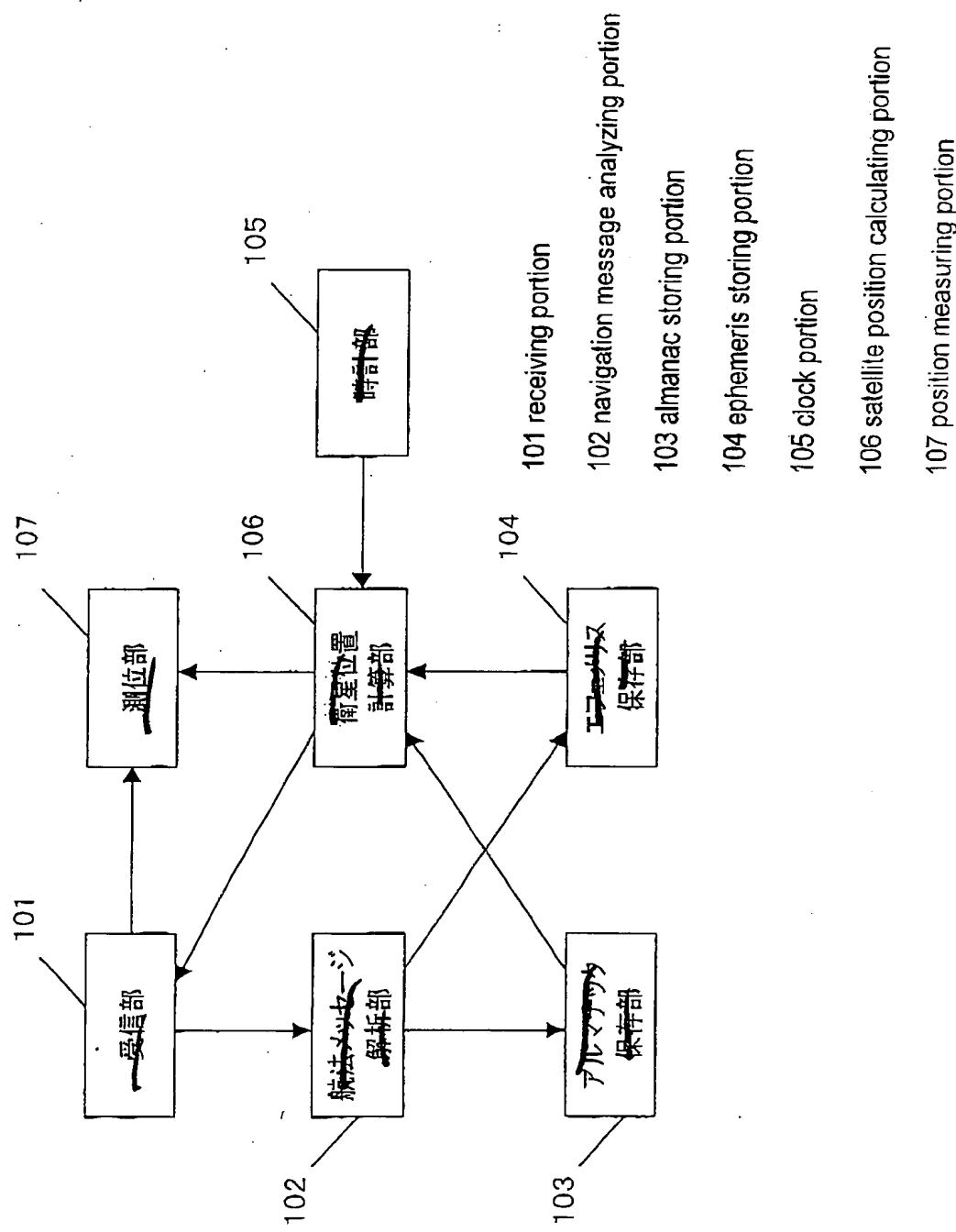
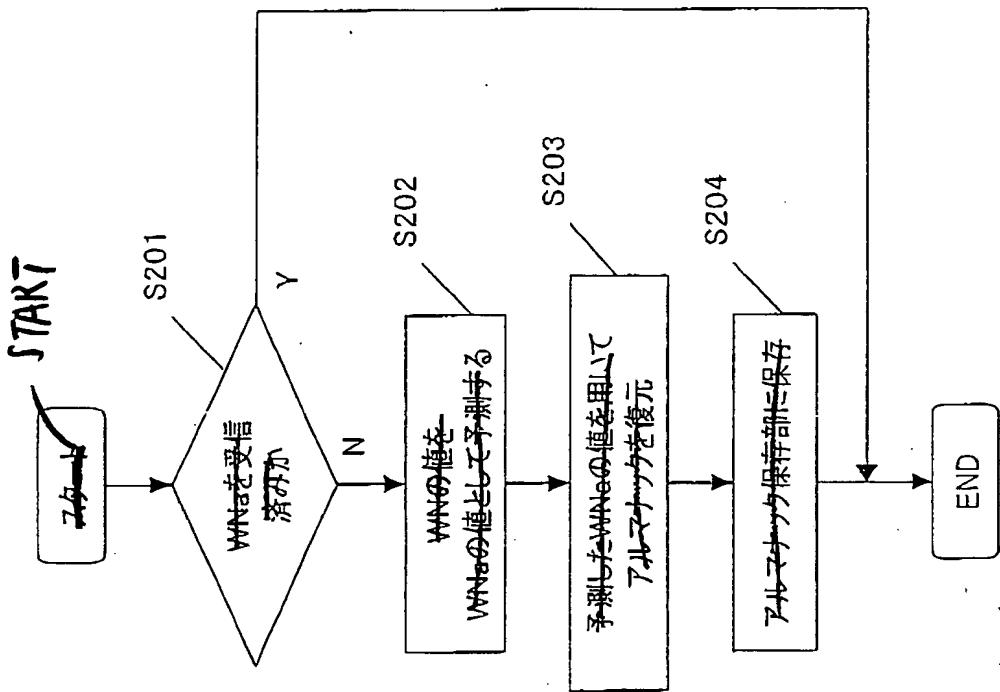


Fig. 1



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Fig. 2



S201 WNa has been already received?

S202 predict a WN value as a WNa value

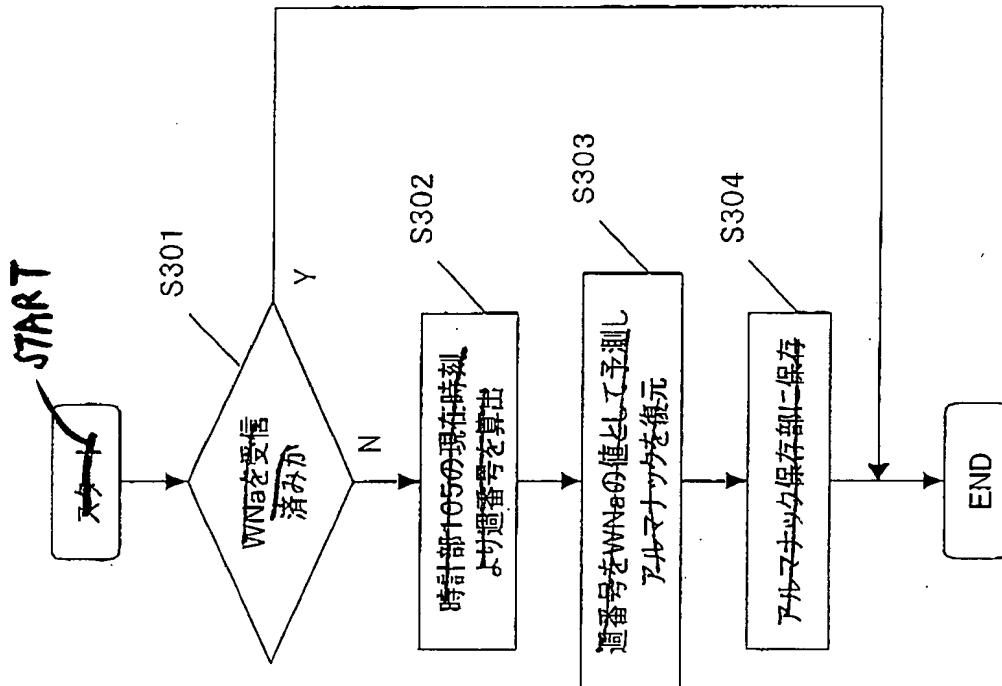
S203 restore an almanac by using the predicted WNa value

S204 store in an almanac storing portion

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Fig 3



S301 WNa has already been received ?

S302 calculate a week number based on a current time of a clock portion 105

S303 predict the week number as a WNa value and restore an almanac

S304 store in an almanac storing portion

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- S401 calculate a week number and a time lapsed from a head of the week based on a current time of a clock portion 105
- S402 a difference between the received Z count and the calculated time lapsed from a head of the week exceeds a threshold value ?
- S403 decide that an almanac which is restored based on the predicted WNa is abnormal
- S404 abandon
- S405 decide that an almanac which is restored based on the predicted WNa is valid
- S406 store in an almanac storing portion

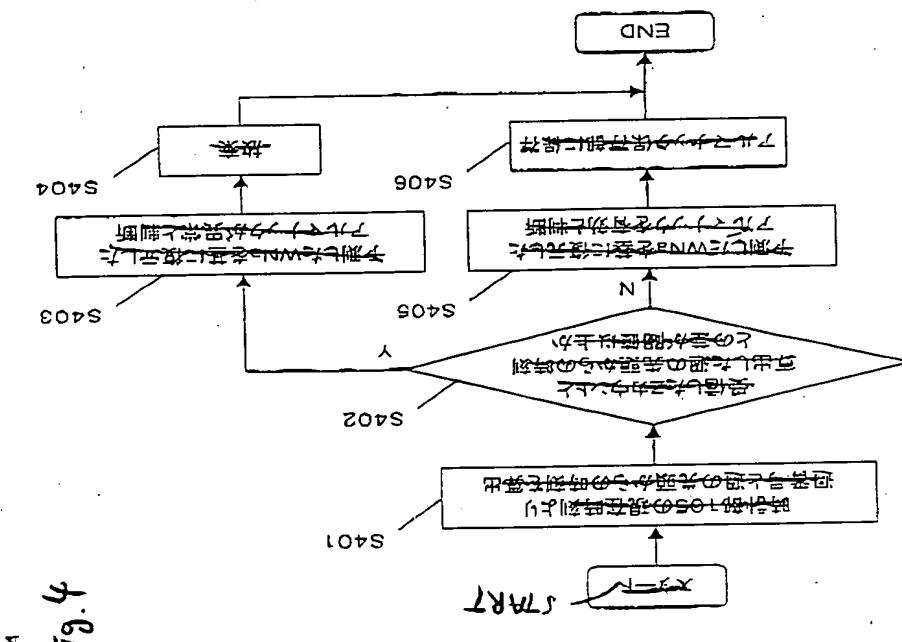


Fig. 4

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- A501 The almanac is stored ?
 S502 calculate a satellite position by using the almanac which is stored
 S503 calculate a satellite position by using the almanac which is restored based on the predicted WNa
 A504 a positional difference between them exceeds a threshold value ?
 A505 decide that an almanac which is restored based on the predicted WNa is abnormal
 S506 abandon
 S507 decide that an almanac which is restored based on the predicted WNa is valid
 S508 store in an almanac storing portion

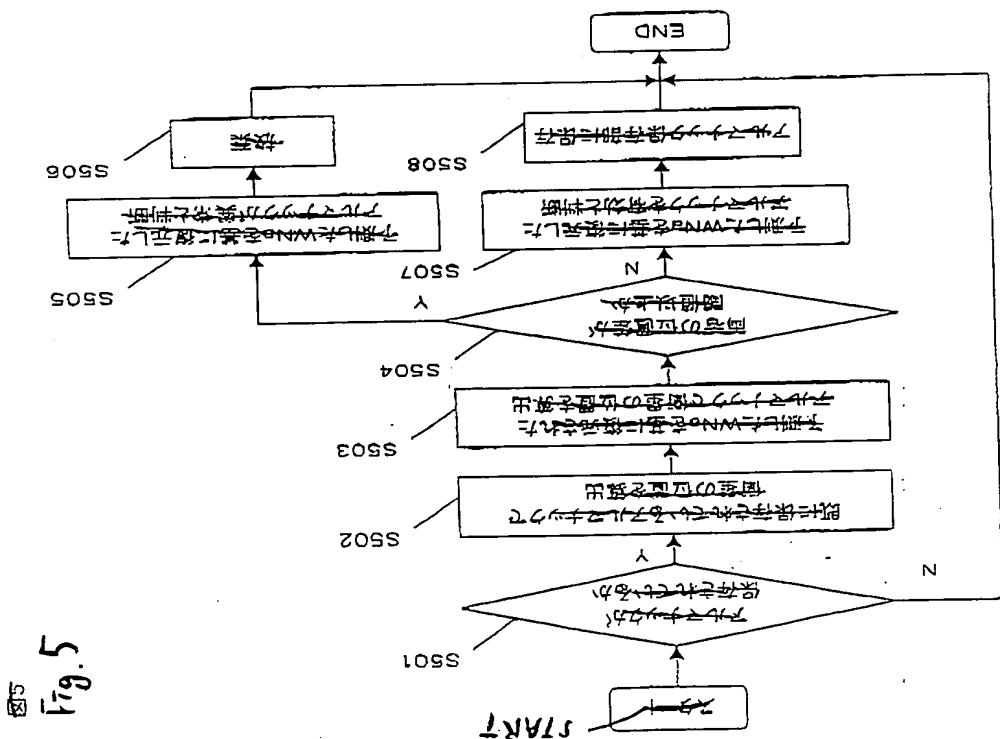


Fig. 5

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- S601 a signal of a certain satellite is received ?
- S602 measure a Doppler-shift frequency of the signal being received
- S603 calculate the Doppler-shift frequency of the certain satellite by using the almanac which is restored based on the predicted WNA
- S604 a positional difference between them exceeds a threshold value ?
- S605 decide that an almanac which is restored based on the predicted WNA is abnormal
- S606 abandon
- S607 decide that the almanac which is restored based on the predicted WNA is valid
- S608 store in an almanac storing portion

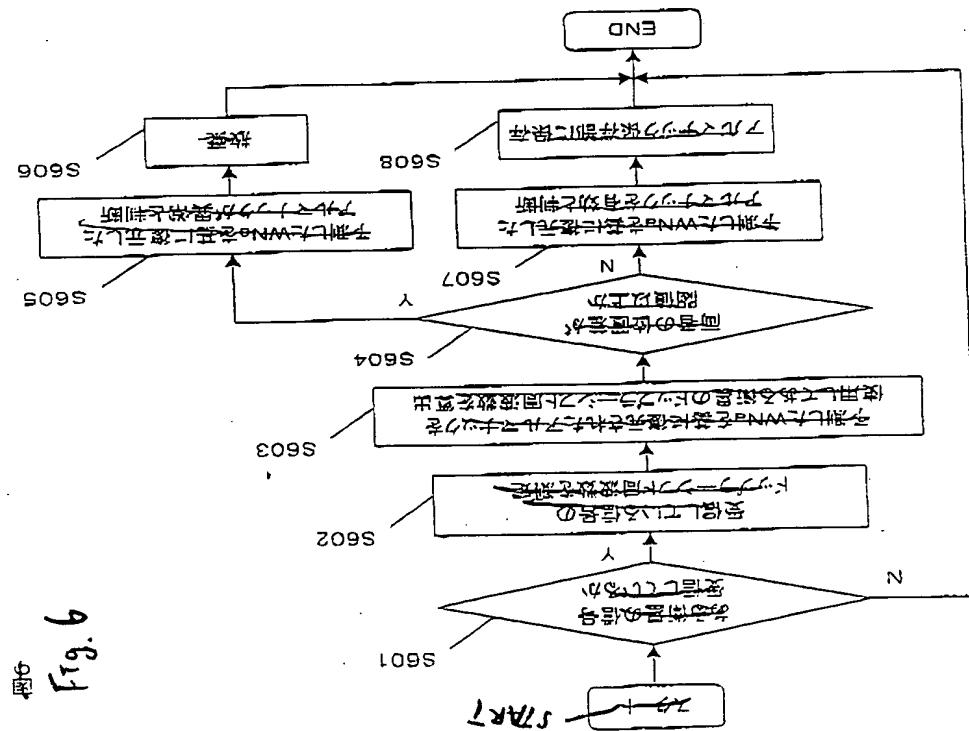
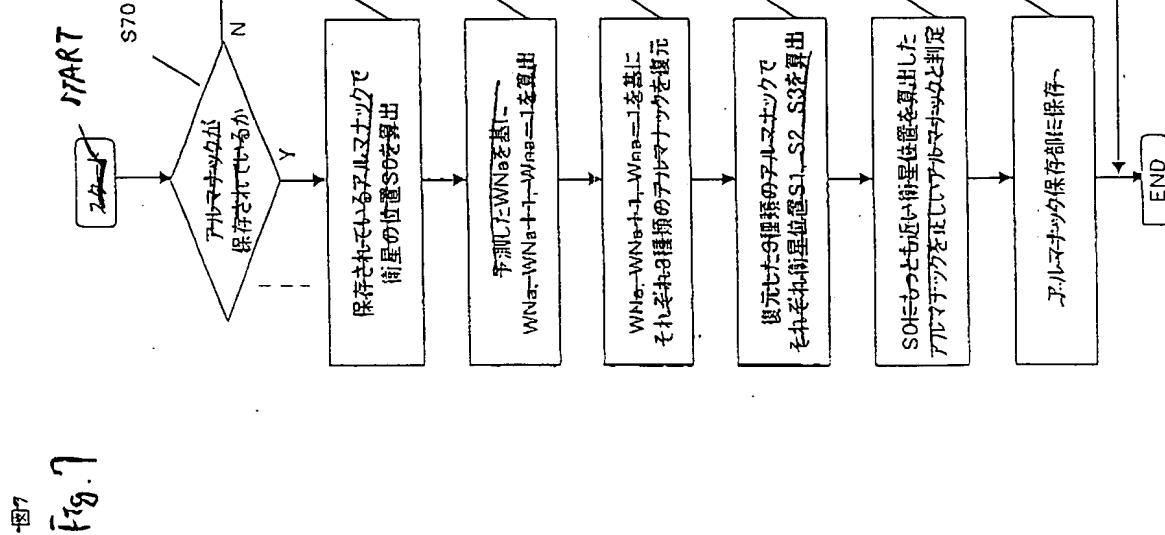


Fig. 6

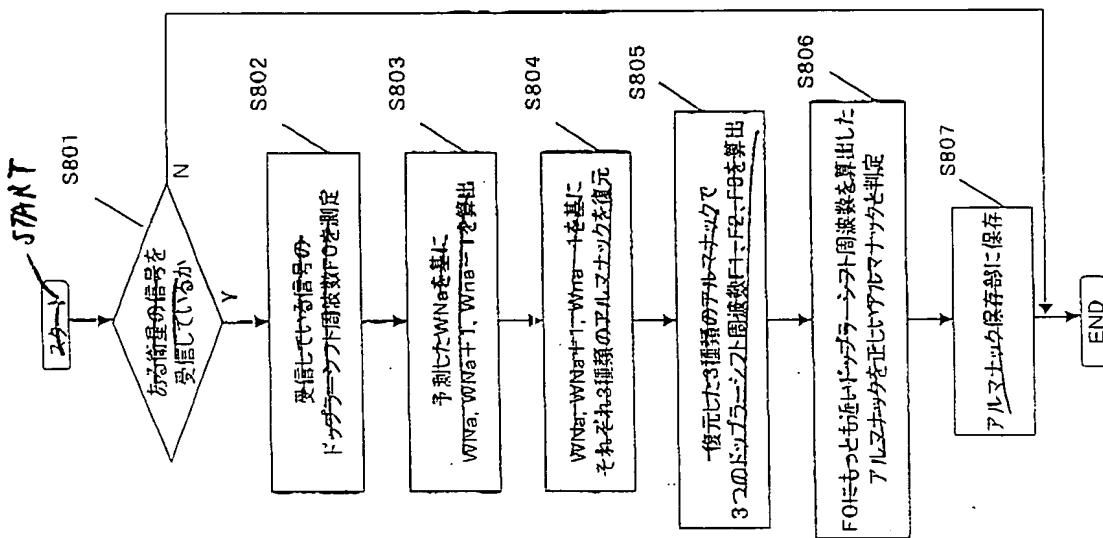
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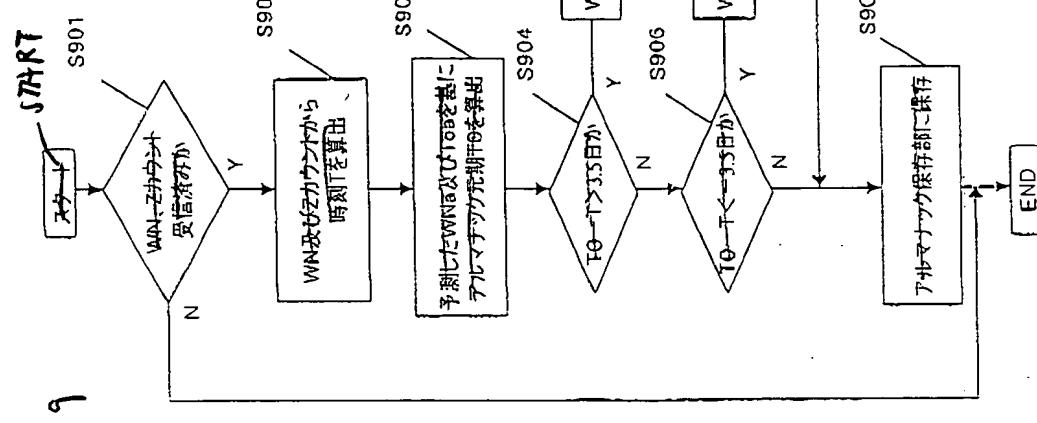


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Fig. 8

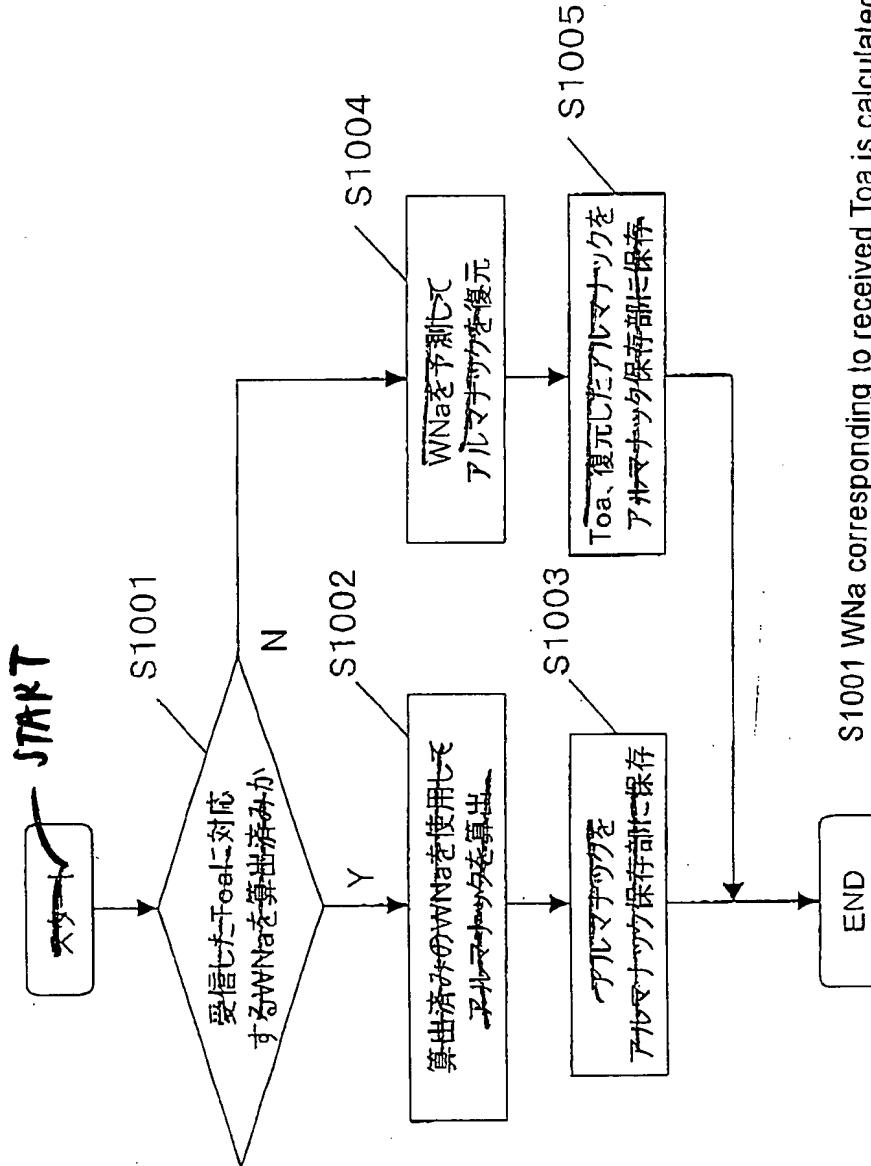


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Fig. 10



S1001 WNa corresponding to received Toa is calculated ?

S1002 calculate an almanac by using the calculated WNa

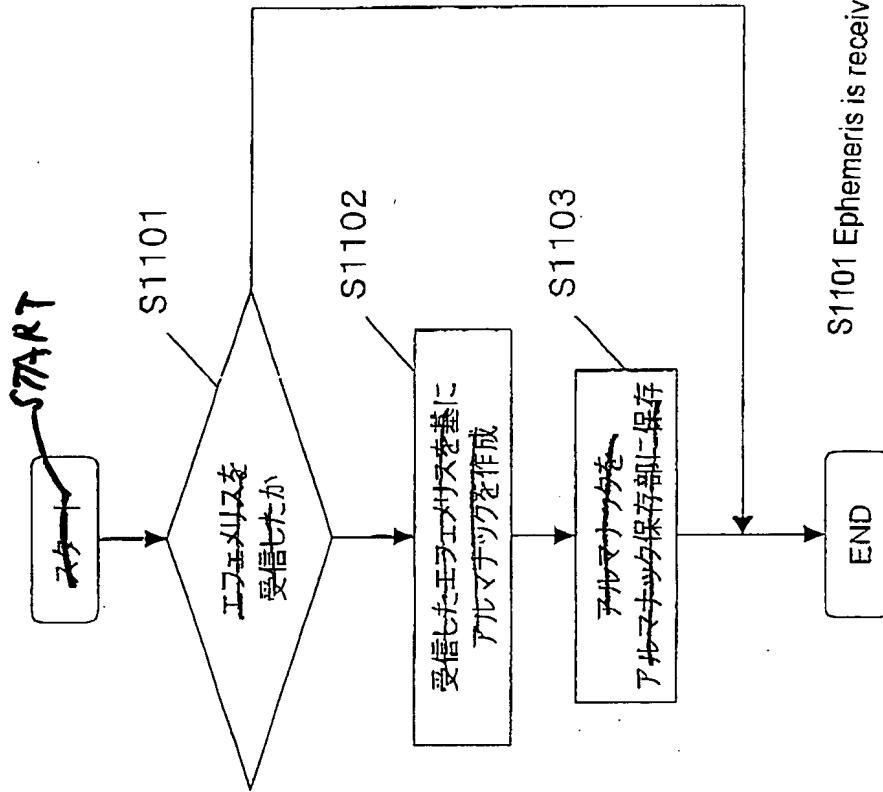
S1003 store the almanac in an almanac storing portion

S1004 restore the almanac by predicting WNa

S1005 store Toa and the restored almanac in an almanac storing portion

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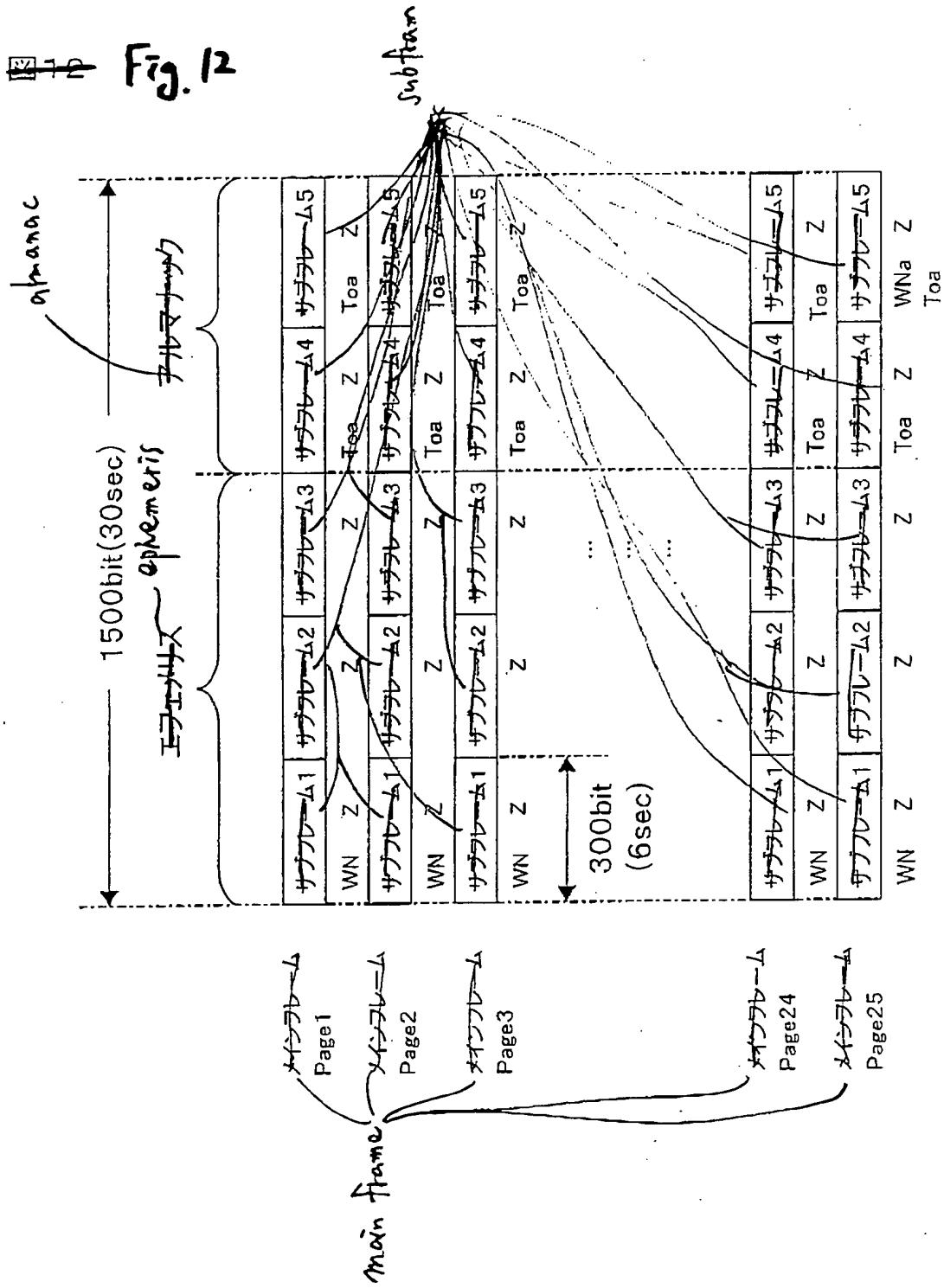
Fig. II



S1101 Ephemeris is received ?
 S1102 form an almanac based on received ephemeris
 S1103 store the almanac in an almanac storing portion

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Fig. 12



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图 13

Fig. 13

